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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/578,237	05/24/2000	Brian K. McMillin	AFX-8807	5450

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GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
2684	9

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/578,237	MCMILLIN, BRIAN K.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tilahun B Gesesse	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 May 2000.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 29 is/are allowed.  
 6) Claim(s) 1-28 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____.   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5.7-8</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-8,10-19,21-22,24-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Sherman (5,974,236).

As to claim 1, 26, Sherman discloses a system operating on a reference frequency, the system (10) comprising a plurality of at least three nodes wherein each node hand off a message received from another node to a subsequent node (column 3, lines 48-56 and column 4, lines 1-50 and figure 1), each of the nodes comprising: a transceiver receiving a message on the reference frequency from another node and transmitting the received message on the reference frequency to a subsequent node (column 4, lines 1-50), and a controller controlling operation of the transceiver to receive the message transmitted by another node and to transmit the received message to a subsequent node (column 5, lines 22-34 and figure 2).

As to claims 2-3, 27, Sherman discloses the transceivers receiving the message transmits on the reference frequency an acknowledgment that the message has been received and wherein the transceiver transmitting the message receives on the reference frequency the acknowledgment (column 5, lines 19-22).

As to claim 4, Sherman discloses the transceiver receiving the message transmits the explicit acknowledgment signal after receiving the message at least twice (column 6, lines 35-39).

As to claims 5, Sherman discloses acknowledgment is an implicit acknowledgment such that each of the transceivers receiving the message retransmits on the reference frequency the message to another transceiver, which retransmitted message, is received by the transceiver originally transmitting the message (column 7, lines 11-39).

As to claim 6,28, Sherman discloses an original node for originating the message , an intermediate node for handing off the message from a another node from which the message is received to a subsequent node other than the node from which the message was received , or destination node for receiving the message (figure 1 and column 4, lines 1-15).

As to claim 7, Sherman discloses the message comprises data bits corresponding to data, originating bits identifying the first node from which the message originates; destination bits identifying the last mode to which the message is destined; receiving bits identifying the next node inteded to receive the message currently being transmitted (column 4 lines 1-15 and figure 1).

As to claim 8, Sherman discloses a GPS receiver interfacing with the controller to provide position and/or time information corresponding to the global position of the GPS receiver (column 5, lines 35-42 and figure 2).

As to claim 10, Sherman discloses the controller includes a memory storing control software for controlling the controller and wherein the control software is modified via signal provided to the transceiver (column 5, lines 19-27).

As to claims 11, Sherman discloses a system operating on a reference frequency, the system comprising a plurality of at least three nodes wherein each node hand off a message received from another node to a subsequent node, each of the nodes; an original node for originating the message in which the transceiver transmits on the reference frequency a message to another node of the system (column 4, lines 1-19 and figure 1) an intermediate node for handing off the message from a another

Art Unit: 2684

node from which the message is received to a subsequent node other than the node from which the message was received , or destination node for receiving the message(column 4, lines 1-19 and figure 1).

As to claim 12, Sherman discloses the transceivers receiving the message transmits on the reference frequency an acknowledgment that the message has been received and wherein the transceiver transmitting the message receives on the reference frequency the acknowledgment (column 6 , lines 35-60)

As to claim 13, 24, Sherman discloses at least one of the nodes is connected to a network server(data control and modem), wherein data transmitted by the nodes is stored by a database server in a database and wherein an application server permits one or more user systems to access the information stored in the database (column 5, lines 18-47 and figure 2).

As to claim 14, Sherman discloses one of the nodes is programmed to expect a message from another of the nodes within a set of period of time and wherein the particular node sends an exception message if the expected message is not received within the set period of time (column 5, lines 18-47 and figure 2).

As to claim 15, 25, Sherman discloses a certain node of the plurality of intermediate nodes is disabled and unable to provide message, others of the plurality can provide the last received messages form the certain node that is disabled (column 15, lines 31-49)

As to claims 16-19, Sherman discloses the message comprises data bits corresponding to data and wherein the trailing edge of each data bit provide a reference for detection of the data bits (column 5, lines 52-column 6, lines 5 and figure 3).

As to claim 21, Sherman discloses multiple packets of messages are transferred, each packet having a unique identification and wherein only unreceived packets are re-transmitted (figure 3).

As to claim 22, Sherman discloses the nodes transmit messages after a time delay when other nodes are transmitting (column 13, lines 35-54)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9,20,23 rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman in view of Ayanoglu et al "Ayanoglu" (5,822,309).

As to claim 9, Sherman does not disclose the system is for use in combination with a WAN and WAN control message for providing from WAN to controller. However, Ayanoglu discloses WAN (figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Sherman and Ayanoglu in connecting WAN in node to node wireless communication without central infrastructure, as taught by Ayanoglu, for distributing information to group of subscribers in simple way of connecting node to node.

As to claim 20, Sherman does not disclose at least one of the nodes stores an audible announcement and wherein the node activates the announcement in response to receiving a particular predefined message. However, Ayanoglu teaches stores identity and alert before connection setup (column 10 lines 29-38 and column 11, lines 14-17). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Sherman and Ayanoglu , in alerting the PBS before setup, for indicating the identification is matched.

As to claim 23, Sherman does not disclose the transceiver has adjustable power output up to one milliwatt thereby reducing interference between adjacent transceivers and the by increasing the effective bandwidth of the system. However Aanoglu teaches transmission power is limited to the specific area (column 4, lines 8-17). Since, Sherman , in the similar art , teach transmit capability is limited for node to node, therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Sherman and Ayanoue , monitoring the transmission power level , as taught by Ayanoue transmitting in a limited range, in order to minimize interfering with other transceivers.

***Allowable Subject Matter***

7. Claim 29 is allowed over the prior art.
8. The following is an examiner's statement of reasons for allowance: the prior art does not teach a third transceiver receiving on the reference frequency the message transmitted by the one intermediate node and transmitting on the reference frequency an implicit and/or explicit acknowledgment to the one intermediate node that the

message has been received by the destination node; and the third controller controlling the operation of the third transceiver to receive the message transmitted by the one intermediate node and to transmit an implicit and/or explicit acknowledgment that the message had been received by the destination node. These limitations, in conjunction with the all limitations to the independent claims, have not been disclosed, taught , or made obvious over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okanoue (6,338,087) discloses an ad hoc LAN is set up in an environment in which there simultaneously exist a backbone connected LAN connected by a high speed backbone network (abstract).

Toh discloses a routing method for supporting ad hoc mobile communications within a radio communications network (abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 703-308-5873. The examiner can normally be reached on flex.

Art Unit: 2684

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TBG

June 14, 2004

Art unit 2684

TILAHUN GESESS  
PATENT EXAMINER